

**QUALITY ASSURANCE PROGRAM DNA TYPING OF
BIOLOGICAL MATERIALS - FORENSIC BIOLOGY SECTION
PROCEDURE MANUAL, SECTION VI**

Issue No.: 3

Effective Date: 11-January-2005

APPENDIX D: CARE AND MAINTENANCE OF PIPETTES**1. Cleaning and Checking the Sealing System**

Remove the tip ejector arm by pulling downward. Unscrew the shaft coupling slowly while holding the body and shaft firmly. The internal piston is spring loaded and will release when disengaged. Remove the white shaft from the piston assembly.

- a. Shaft: Inspect the tip sealing end of the shaft for scratches, wear marks and splits.
- b. Piston: Expose the piston surface. If the stainless steel surface is highly-polished, the piston is in good condition and is not damaged. If the piston is highly stained or dirty, clean with isopropyl alcohol and a Kimwipe. Allow to air dry before reassembly. If the piston surface is scratched, heavily stained, corroded, or bent, the piston must be replaced.
- c. Polyethylene Seal: Slide the white polyethylene seal up and down the piston. If the seal has resistance throughout the full length of the piston, it remains in good condition. If the resistance is spotty or non-existent, replace the seal. Seal replacement will not effect the pipette calibration.

2. Routine In-House Verification of the Pipette Calibration

Once the pipette has been reassembled after cleaning, conduct a quick calibration check using graduated Rainin Pipette RT tips. Verify the pipetting volumes of the pipette as specified in the Pipette Verification Table below. The pipette tips are guaranteed to be accurate +/- 3% at the specified reference lines. Should the pipette be visibly incorrect according to the reference line, the pipette will be sent to the manufacturer for repair.

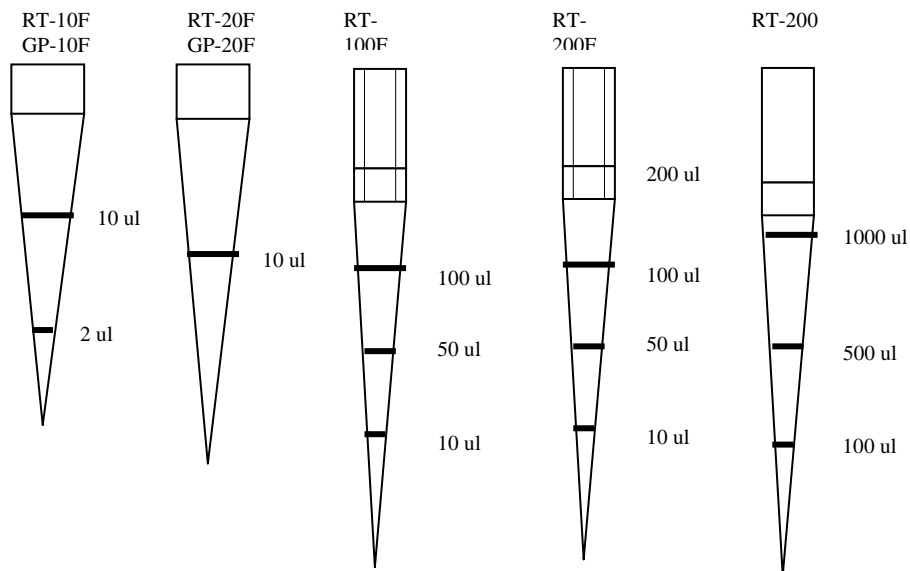
Pipette Verification Table

Pipette	Tip RT-10		Tip RT-10	Tip RT-20	Tip RT-20			Tip RT-200		
P-10	2 µL	10 µL								
P-20			2 µL	10 µL						
P-100					50 µL	100 µL				
P-200					50 µL	100 µL	200 µL			
P-1000								100 µL	500 µL	1000 µL

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